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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,761

03/15/2004

Thomas Fay-Oy Lim

LC-491 US

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12/04/2006

HENKEL CORPORATION

Legal Department

1001 Trout Brook Crossing

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EXAMINER

WYROZEBSKI LEE, KATARZYNA I

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,761

Applicant(s)

LIM, THOMAS FAY-OY

Examiner

Katarzyna Wyrozebski

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims of present invention comprise term "substituted". Since specification does not provide further definition of the term "substituted" claims are rendered indefinite.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-11, 14, 15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by FUJIKI (JP 04057850).

The prior art of FUJIKI as translated discloses composition of the present invention, which is room temperature, moisture curable sealing or adhesive composition that does not exhibit bleeding of the plasticizer.

Component 1 is a silane capped polymer having polyether backbone, wherein the preferred polyether is one containing methylene groups, ethylene groups, propylene groups or butylenes groups. Such groups encompass polymers of polypropylene oxide or polytetramethylene. Component 1 is utilized in amount of 10-90 % by weight.

Component 2 is also a silane capped compound that satisfies the requirements of the present invention. Component 2 is utilized in amount of 90-10 wt %.

Component 3 of FUJIKI is curing agent. The catalyst of FUJIKI is moisture curable catalyst capable of curing at room temperature. Curing agent is utilized in amount of 0.01-10 wt %.

Component 4 of FUJIKI includes various additives and fillers. Fillers listed in FUJIKI include silica, calcium carbonate, , magnesium carbonate, carbon black, fibers, clays and the like. Disclosed are also pigments, organic dyes, tackifiers, antioxidants, silane coupling agents (otherwise known as adhesion promoters) or aminosilanes all utilized in amount of 5-200 wt %.

Composition of FUJIKI is utilized as a sealant for various substrate. Substrates include glass, wood, metal, polymers and the like.

In the light of the above disclosure, the prior art of FUJIKI anticipates claims rejected above.

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5. Claims 1-17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by IWAHARA (JP62-39646).

The translation of the prior art of IWAHARA discloses composition that is moisture curable at room temperature. The composition is utilized as a sealant or adhesive for substrates such as vinyl, diene or acrylic polymers. The composition of IWAHARA exhibits improved strength, tack and retension strength.

Component 1 of IWAHARA comprises silane capped polymer having polyether backbone. Preferred polyether compound is polypropylene oxide however R groups having 4 carbon atoms such as butyl groups are also enabled. Polytetramethylene oxide is specifically listed on page 13 of the prior art of IWAHARA.

Component 2 of IWAHARA comprises another silane compound or silane capped compound as required by the present invention. The amount of Component 2 in the composition of IWAHARA depends on long term properties of the cured material and the overall range given is 0.3-20 pbw.

Component 3 of IWAHARA is tackifier that includes low polarity compounds. The amount of the tackifier resin is in a range of 5-120 pbw.

Component 4 of IWAHARA is a catalyst that is capable of moisture curing at room temperature. The amount of the catalyst is usually in a range of 0.1-20 pbw.

Component 5 of IWAHARA includes various additives and fillers such as calcium carbonate, clay, silica, additional plasticizers such as polypropylene glycol or polyisobutylene,

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pigments, anti-oxidant, surfactants and adhesion promoters. Adhesion promoters include aminopropyl trimethoxy silane.

The composition was utilized as an adhesive on a polymeric base such as polyester, stainless steel or rubber to glue to another plastic in form of the adhesive tape. Amounts of fillers are listed in Table 2 of the prior art.

In the light of the above disclosure the prior art of IWAHARA anticipates claims rejected above.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over either FUJIKI (JP 04057850) or IWAHARA (JP62-39646) in view of TOSHIFUMI (EP 106 330).

The prior art disclosure of FUJIKI or IWAHARA from paragraph 4 or 5 of this office action is incorporated here by reference. In summary both disclosures clearly teach moisture curable adhesive comprising silane terminated polymeric compounds having polyether backbone. The adhesives are utilized in joining together plastic substrates.

The difference between the prior art of FUJIKI or IWAHARA is a disclosure that the plastic substrate to be joined by the adhesive composition is a polyolefinic substrate such as polyethylene or polypropylene.

With respect to the above difference, the prior art of TOSHIFUMI teaches moisture curable adhesive composition comprising a polyether based compound that is terminated with silane, wherein composition further comprises fillers and catalyst.

The composition of TOSHIFUMI is also applied to a plastic adherent, which can be either polyethylene or polypropylene among others that are equally taught or suggested by the disclosures cited in this office action.

Moisture curable adhesives such as those disclosed in the prior art cited in this office action have an advantage of eliminating solvent use and still providing composition having tack and retention strength. It is also shown that such composition can be successfully utilized to join polymeric substrates such as polyolefins.

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In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art at the time of the instant invention to utilize the compositions of FUJIKI or IWAHARA as adhesives for polyolefins and thereby obtain the claimed invention. Polyolefins are plastics, which are otherwise taught or suggested by the disclosures of FUJIKI or IWAHARA.

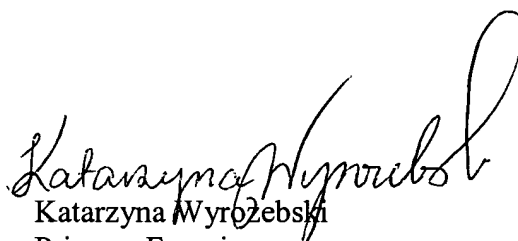
9. During the search for the prior art the examiner found following disclosures that are applicable against present claims: KASHUBSKI (US 2005/0211580 and US 2003/0153671), NISHIKAWA (EP 442 380), MIKIKO (EP 673 972) and KATSUHIRO (EP 1 279 709). The examiner reserves right to apply any of these disclosures against present claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Katarzyna Wyrzybski
Primary Examiner
Art Unit 1714

November 28, 2006